AUTHOR INDEX

Alcala, A.C., *see* Alcazar, S.N. et al.
Alcazar, S.N., Solis, E.P. and Alcala, A.C. (Dumaguete City, The Philippines)
Serotonin-induced spawning and larval rearing of the China clam, *Hippopus porcellanus* Rosewater (Bivalvia: Tridacnidae) 359
Alexandre, J.C., *see* Devauchelle, N. et al.
Alexis, M.N., *see* Papoutsoglou, S.E. et al.
Antoine, T., Wery, P. (Louvain-la-Neuve, Belgium), Micha, J.-C. (Namur, Belgium) and Van Hove, C. (Louvain-la-Neuve, Belgium)
Comparaison de la croissance et de la composition chimique d'*Oreochromis (Tilapia) niloticus* L. et de *Cichlasoma (Theraps) melanurum* Gth. nourris avec *Azolla* (Comparison of the growth and chemical composition of *Oreochromis (Tilapia) niloticus* and *Cichlasoma (Theraps) melanurum* Gth. fed with *Azolla*) 181
Arai, S. (Tamaki, Japan), Mori, T., Miki, W., Yamaguchi, K., Konosu, S., Satake, M. and Fujita, T. (Tokyo, Japan)
Pigmentation of juvenile coho salmon with carotenoid oil extracted from Antarctic krill . 255
Asensio, M.A., *see* De la Hoz, L. et al.
Barnabé, G. and Le Coz, C. (Martinique, French West Indies)
Large-scale cage rearing of the European sea bass, *Dicentrarchus labrax* (L.), in tropical waters 209
Baynes, S.M. and Scott, A.P. (Lowestoft, Great Britain)
Cryopreservation of rainbow trout spermatozoa: the influence of sperm quality, egg quality and extender composition on post-thaw fertility 53
Bell, J.G., McVicar, A.H. and Cowey, C.B. (Aberdeen, Great Britain)
Pyruvate kinase isozymes in farmed Atlantic salmon (*Salmo salar*): pyruvate kinase and antioxidant parameters in pancreas disease 33
Bern, H.A., *see* Iwata, M. et al.
Billard, R., *see* Saad, A. and Billard, R.
Bower, S.M. and Thompson, A.B. (Nanaimo, B.C., Canada)
Hatching of the Pacific salmon leech (*Piscicola salmositica*) from cocoons exposed to various treatments 1
Brickell, L., *see* Porter, C.B. et al.
Cambero, M.I., *see* De la Hoz, L. et al.
Cantelmo, O.A., *see* Merola, N. and Cantelmo, O.A.
Chaitanawisuti, N. (Cholburi, Thailand) and Menasveta, P. (Bangkok, Thailand)
Experimental suspended culture of green mussel, *Perna viridis* (Linn.), using spat transplanted from a distant settlement ground in Thailand 97
Chapman, F., *see* Lutes, P.B. et al.
Chen, J.-C., *see* Chin, T.-S. and Chen, J.-C.
Chin, T.-S. and Chen, J.-C. (Keelung, Taiwan)
Acute toxicity of ammonia to larvae of the tiger prawn, *Penaeus monodon* 247
Christiansen, E.N., *see* Totland, G.K. et al.
Collie, N.L., *see* Iwata, M. et al.
Costa-Pierce, B.A. and Craven, D.B. (Honolulu, HI, U.S.A.)
Estimating microbial production and growth rates in aquaculture ponds using rates of RNA and DNA synthesis 69

Cowey, C.B., *see* Bell, J.G. et al.
Craven, D.B., *see* Costa-Pierce, B.A. and Craven, D.B.
Cropp, D.A., *see* Hortle, M.E. and Cropp, D.A.
Davidson, A., *see* Porter, C.B. et al.
De la Hoz, L., Ordoñez, J.A., Asensio, M.A., Cambero, M.I. and Sanz, B. (Madrid, Spain)
Effects of diets supplemented with olive oil bagasse or technical rendered fat on the apolar lipids and their fatty acid composition of trout (*Salmo gairdneri*) muscle 149
Devauchelle, N., Alexandre, J.C., Le Corre, N. and Letty, Y. (Brest, France)
Spawning of sole (*Solea solea*) in captivity 125
Doroshov, S.I., *see* Lutes, P.B. et al.
Fitzgerald, R., *see* Lutes, P.B. et al.
Fitzpatrick, M., *see* Lutes, P.B. et al.
Fujita, T., *see* Arai, S. et al.
Gjerde, B., *see* Standal, M. and Gjerde, B.
Griffiths, R., *see* Pickering, A.D. et al.
Hanley, F. (Kingston, Jamaica)
The digestibility of foodstuffs and the effects of feeding selectivity on digestibility determinations in tilapia, *Oreochromis niloticus* (L.) 163
Harrah, J., *see* Lutes, P.B. et al.
Heming, T.A. and Paleczny, E.J. (Vegreville, Alta., Canada)
Compositional changes in skin mucus and blood serum during starvation of trout 265
Hortle, M.E. and Cropp, D.A. (Taroona, Tasmania, Australia)
Settlement of the commercial scallop, *Pecten fumatus* (Reeve) 1855, on artificial collectors in eastern Tasmania 79
Iwata, M. (Berkeley, CA, U.S.A. and Iwate, Japan), Komatsu, S. (Iwate, Japan), Collie, N.L. (Tokyo, Japan), Nishioka, R.S. and Bern, H.A. (Berkeley, CA, U.S.A.)
Ocular cataract and seawater adaptation in salmonids 315
Jødestøl, K.A., *see* Totland, G.K. et al.
Komatsu, S., *see* Iwata, M. et al.
Konosu, S., *see* Arai, S. et al.
Krom, M.D., *see* Porter, C.B. et al.
Kryvi, H., *see* Totland, G.K. et al.
Le Corre, N., *see* Devauchelle, N. et al.
Le Coz, C., *see* Barnabé, G. and Le Coz, C.
Letty, Y., *see* Devauchelle, N. et al.
Lutes, P.B., Doroshov, S.I., Chapman, F., Harrah, J. (Davis, CA, U.S.A.), Fitzgerald, R. (Richmond, CA, U.S.A.) and Fitzpatrick, M. (Corvallis, OR, U.S.A.)
Morpho-physiological predictors of ovulatory success in white sturgeon, *Acipenser transmontanus* Richardson 43
McVicar, A.H., *see* Bell, J.G. et al.
Menasveta, P., *see* Chaitanawisuti, N. and Menasveta, P.
Merola, N. (Brasilia, Brazil) and Cantelmo, O.A. (Pirassununga, Brazil)
Growth, feed conversion and mortality of cage-reared tambaqui, *Colossoma macropomum*, fed various dietary feeding regimes and protein levels 223
Micha, J.-C., *see* Antoine, T. et al.
Miki, W., *see* Arai, S. et al.
Mori, T., *see* Arai, S. et al.
Nishioka, R.S., *see* Iwata, M. et al.; Winans, G.A. and Nishioka, R.S.
Ordoñez, J.A., *see* De la Hoz, L. et al.
Paleczny, E.J., *see* Heming, T.A. and Paleczny, E.J.
Papaparaskeva-Papoutsoglou, E., *see* Papoutsoglou, S.E. et al.

Papoutsoglou, S.E. (Athens, Greece), Papaparaskeva-Papoutsoglou, E. and Alexis, M.N. (Elliniko, Greece)
Effect of density on growth rate and production of rainbow trout (*Salmo gairdneri* Rich.) over a full rearing period 9
Pickering, A.D., Griffiths, R. and Pottinger, T.G. (Ambleside, Great Britain)
A comparison of the effects of overhead cover on the growth, survival and haematology of juvenile Atlantic salmon, *Salmo salar* L., brown trout, *Salmo trutta* L., and rainbow trout, *Salmo gairdneri* Richardson 109
Piironen, J. (Joensuu, Finland)
Factors affecting fertilization rate with cryopreserved sperm of whitefish (*Coregonus muksun* Pallas) 347
Porter, C.B., Krom, M.D., Robbins, M.G., Brickell, L. and Davidson, A. (Eilat, Israel)
Ammonia excretion and total N budget for gilthead seabream (*Sparus aurata*) and its effect on water quality conditions 287
Pottinger, T.G., *see* Pickering, A.D. et al.
Rice, M.A. and Stephens, G.C. (Irvine, CA, U.S.A.)
Uptake and internal distribution of exogenously supplied amino acids in the Pacific oyster, *Crassostrea gigas* (Thunberg) 19
Ringø, E. (Tromsø, Norway)
Comparison of freshwater growth of landlocked (Takvatn stock) and anadromous (Hammerfest stock) Arctic charr, *Salvelinus alpinus* (L.) 369
Robbins, M.G., *see* Porter, C.B. et al.
Saad, A. and Billard, R. (Jouy-en-Josas, France)
Composition et emploi d'un dilueur d'insémination chez la carpe, *Cyprinus carpio* (The composition and use of a sperm diluent in the carp, *Cyprinus carpio*) 329
Sahai, I., *see* Srivastava, A.K. and Sahai, I.
Samuelsen, O.B. (Haukeland, Norway)
Aeration rate, pH and temperature effects on the degradation of trichlorfon to DDVP and the half-lives of trichlorfon and DDVP in seawater 373
Sanz, B., *see* De la Hoz, L. et al.
Satake, M., *see* Arai, S. et al.
Scott, A.P., *see* Baynes, S.M. and Scott, A.P.
Slinde, E., *see* Totland, G.K. et al.
Solis, E.P., *see* Alcazar, S.N. et al.
Srivastava, A.K. and Sahai, I. (Gorakhpur, India)
Effects of loading density on carbohydrate metabolism and hematology in the Indian freshwater catfish, *Heteropneustes fossilis* 275
Standal, M. and Gjerde, B. (Ås, Norway)
Genetic variation in survival of Atlantic salmon during the sea-rearing period 197
Stephens, G.C., *see* Rice, M.A. and Stephens, G.C.
Tangerås, A., *see* Totland, G.K. et al.
Thompson, A.B., *see* Bower, S.M. and Thompson, A.B.
Totland, G.K., Kryvi, H. (Bergen, Norway), Jødestøl, K.A., Christiansen, E.N. (Oslo, Norway), Tangerås, A. and Slinde, E. (Bergen, Norway)
Growth and composition of the swimming muscle of adult Atlantic salmon (*Salmo salar* L.) during long-term sustained swimming 299
Van Hove, C., *see* Antoine, T. et al.
Wery, P., *see* Antoine, T. et al.
Winans, G.A. (Seattle, WA, U.S.A.) and Nishioka, R.S. (Berkeley, CA, U.S.A.)
A multivariate description of change in body shape of coho salmon (*Oncorhynchus kisutch*) during smoltification 235
Yamaguchi, K., *see* Arai, S. et al.

CONTENTS OF *AQUACULTURE*, VOLUME 66

VOL. 66 No. 1 — 1 OCTOBER 1987

Diseases, Parasites and Predators

Hatching of the Pacific salmon leech (*Piscicola salmositica*) from cocoons exposed to various treatments
S.M. Bower and A.B. Thompson (Nanaimo, B.C., Canada) 1

Husbandry and Management

Effect of density on growth rate and production of rainbow trout (*Salmo gairdneri* Rich.) over a full rearing period
S.E. Papoutsoglou (Athens, Greece), E. Papaparaskeva-Papoutsoglou and M.N. Alexis (Elliniko, Greece) 9

Physiology and Endocrinology

Uptake and internal distribution of exogenously supplied amino acids in the Pacific oyster, *Crassostrea gigas* (Thunberg)
M.A. Rice and G.C. Stephens (Irvine, CA, U.S.A.) 19

Pyruvate kinase isozymes in farmed Atlantic salmon (*Salmo salar*): pyruvate kinase and antioxidant parameters in pancreas disease
J.G. Bell, A.H. McVicar and C.B. Cowey (Aberdeen, Great Britain) 33

Morpho-physiological predictors of ovulatory success in white sturgeon, *Acipenser transmontanus* Richardson
P.B. Lutes, S.I. Doroshov, F. Chapman, J. Harrah (Davis, CA, U.S.A.), R. Fitzgerald (Richmond, CA, U.S.A.) and M. Fitzpatrick (Corvallis, OR, U.S.A.) 43

Cryopreservation of rainbow trout spermatozoa: the influence of sperm quality, egg quality and extender composition on post-thaw fertility
S.M. Baynes and A.P. Scott (Lowestoft, Great Britain) 53

Technical Papers

Estimating microbial production and growth rates in aquaculture ponds using rates of RNA and DNA synthesis
B.A. Costa-Pierce and D.B. Craven (Honolulu, HI, U.S.A.) 69

Settlement of the commercial scallop, *Pecten fumatus* (Reeve) 1855, on artificial collectors in eastern Tasmania
M.E. Hortle and D.A. Cropp (Taroona, Tasmania, Australia) 79

VOL. 66 NO. 2 — 1 NOVEMBER 1987

Husbandry and Management

Experimental suspended culture of green mussel, *Perna viridis* (Linn.), using spat transplanted from a distant settlement ground in Thailand
N. Chaitanawisuti (Cholburi, Thailand) and P. Menasveta (Bangkok, Thialand) 97

A comparison of the effects of overhead cover on the growth, survival and haemotology of juvenile Atlantic salmon, *Salmo salar* L., brown trout, *Salmo trutta* L., and rainbow trout, *Salmo gairdneri* Richardson
A.D. Pickering, R. Griffiths and T.G. Pottinger (Ambleside, Great Britain) 109

Spawning of sole (*Solea solea*) in captivity
N. Devauchelle, J.C. Alexandre, N. le Corre and Y. Letty (Brest, France) 125

Nutrition

Effects of diets supplemented with olive oil bagasse or technical rendered fat on the aploar lipids and their fatty acid composition of trout (*Salmo gairdneri*) muscle
L. de la Hoz, J.A. Ordoñez, M.A. Asensio, M.I. Cambero and B. Sanz (Madrid, Spain) 149

The digestibility of foodstuffs and the effects of feeding selectivity on digestibility determinations in tilapia, *Oreochromis niloticus* (L.)
F. Hanley (Kingston, Jamaica) 163

Comparaison de la croissance et de la composition chimique d'*Oreochromis (Tilapia)niloticus* L. et de *Cichlasoma (Theraps) melanurum* Gth. nourris avec *Azolla* (Comparison of the growth and chemical composition of *Oreochromis (Tilapia) niloticus* and *Cichlasoma (Theraps) melanurum* Gth. fed with *Azolla*)
T. Antoine, P. Wery (Louvain-la-Neuve, Belgium), J.-C. Micha (Namur, Belgium) and C. van Hove (Louvain-la-Neuve, Belgium) 181

VOL. 66 NOS. 3/4 — 15 NOVEMBER 1987

Genetics and Breeding

Genetic variation in survival of Atlantic salmon during the sea-rearing period
M. Standal and B. Gjerde (Ås, Norway) 197

Husbandry and Management

Large-scale cage rearing of the European sea bass, *Dicentrarchus labrax* (L.), in tropical waters
G. Barnabé and C. le Coz (Martinique, French West Indies) 209

Growth, feed conversion and mortality of cage-reared tambaqui, *Colossoma macropomum*, fed various dietary feeding regimes and protein levels
N. Merola (Brasilia, Brazil) and O.A. Cantelmo (Pirassununga, Brazil) 223

A multivariate description of change in body shape of coho salmon (*Oncorhynchus kisutch*) during smoltification
G.A. Winans (Seattle, WA, U.S.A.) and R.S. Nishioka (Berkeley, CA, U.S.A.) 235

Acute toxicity of ammonia to larvae of the tiger prawn, *Penaeus monodon*
T.-S. Chin and J.-C. Chen (Keelung, Taiwan) 247

Nutrition

Pigmentation of juvenile coho salmon with carotenoid oil extracted from Antarctic krill
S. Arai (Tamaki, Japan), T. Mori, W. Miki, K. Yamaguchi, S. Konosu, M. Satake and T. Fujita (Tokyo, Japan) 255

Compositional changes in skin mucus and blood serum during starvation of trout
T.A. Heming and E.J. Peleczny (Vegreville, Alta., Canada) 265

Physiology and Endocrinology

Effects of loading density on carbohydrate metabolism and hematology in the Indian freshwater catfish, *Heteropneustes fossilis*
A.K. Srivastava and I. Sahai (Gorakhpur, India) 275

Ammonia excretion and total N budget for gilthead seabream (*Sparus aurata*) and its effect on water quality conditions
C.B. Porter, M.D. Krom, M.G. Robbins, L. Brickell and A. Davidson (Eilat, Israel) 287

Growth and composition of the swimming muscle of adult Atlantic salmon (*Salmo salar* L.) during long-term sustained swimming
G.K. Totland, H. Kryvi (Bergen, Norway), K.A. Jødestøl, E.N. Christiansen (Oslo, Norway), A. Tangerås and E. Slinde (Bergen, Norway) 299

Ocular cataract and seawater adaptation in salmonids
M. Iwata (Berkeley, CA, U.S.A. and Iwate, Japan), S. Komatsu (Iwate, Japan), N.L. Collie (Tokyo, Japan), R.S. Nishioka and H.A. Bern (Berkeley, CA, U.S.A.) 315
Composition et emploi d'un dilueur d'insémination chez la carpe, *Cyprinus carpio* (The composition and use of a sperm diluent in the carp, *Cyprinus carpio*)
A. Saad and R. Billard (Jouy-en-Josas, France) 329
Factors affecting fertilization rate with cryopreserved sperm of whitefish (*Coregonus muksun* Pallas)
J. Piironen (Joensuu, Finland) 347
Serotonin-induced spawning and larval rearing of the China clam, *Hippopus porcellanus* Rosewater (Bivalvia: Tridacnidae)
S.N. Alcazar, E.P. Solis and A.C. Alcala (Dumaguete City, The Philippines) 359

Technical Papers
Comparison of freshwater growth of landlocked (Takvatn stock) and anadromous (Hammerfest stock) Arctic charr, *Salvelinus alpinus* (L.)
E. Ringø (Tromsø, Norway) 369
Aeration rate, pH and temperature effects on the degradation of trichlorfon to DDVP and the half-lives of trichlorfon and DDVP in seawater
O.B. Samuelsen (Haukeland, Norway) 373

Erratum 381

Announcements 382

Author Index 383